DISTRICT OF COLUMBIA

Streetcar Land Use Study

PHASE ONE

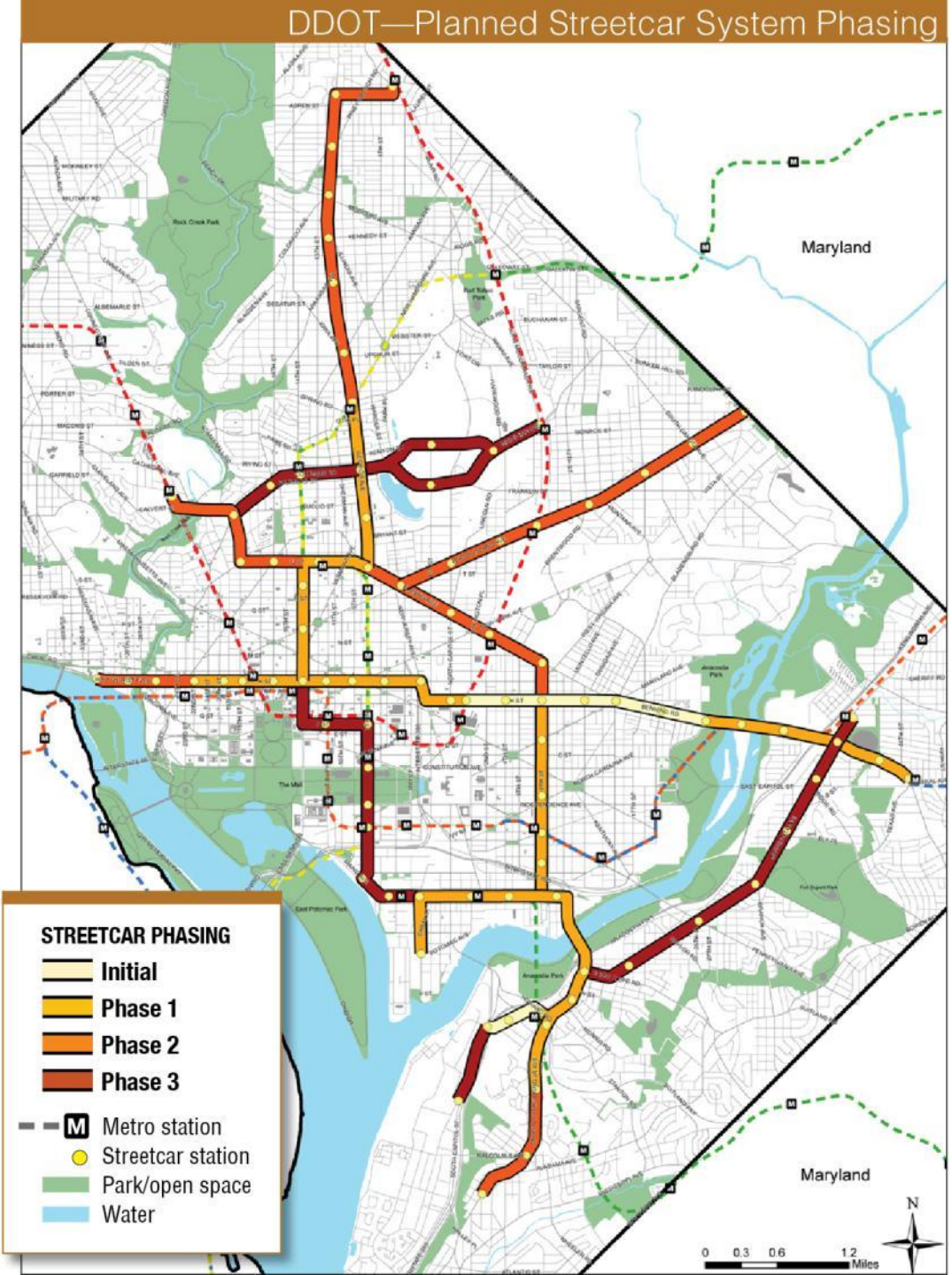
District of Columbia Office of Planning

Goody Clancy
With
Kittelson & Associates
W-ZHA
Zimmerman/Volk Associates
EHT Traceries

January 2012

Overview

- Introduction
- The Benefits of the Streetcar
  - Quality of Life
  - Real Estate Investment
  - Economic and Fiscal Benefits
- Systemwide Challenges and Mitigation
- Corridor/Neighborhood Analysis
  - Benefits and Challenges in Each Corridor
  - Alternative Alignments
- Strategies and Tools for Optimizing Land Use Impacts
- Next Steps

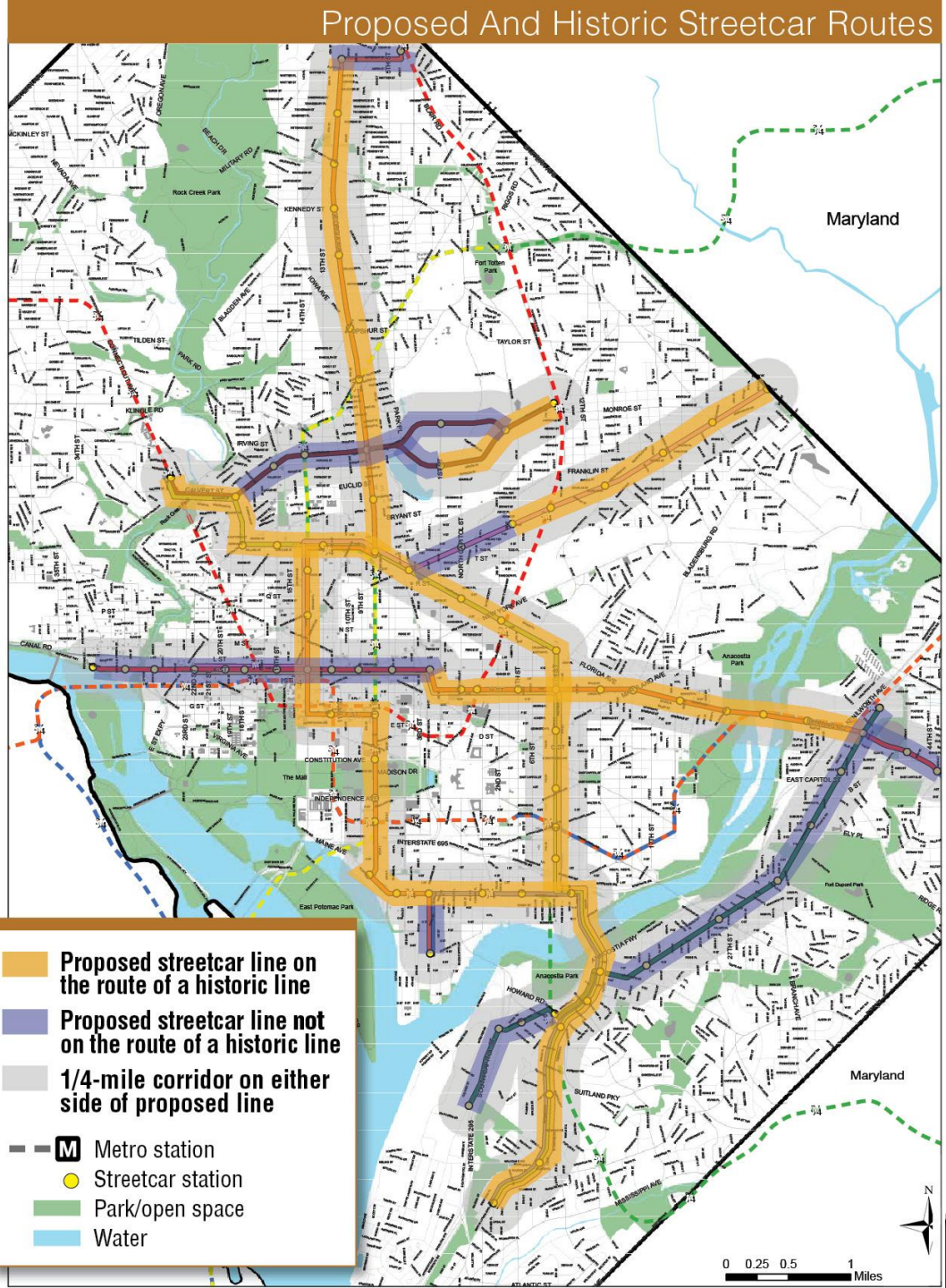


Introduction

- Decision to build streetcar system results from long-term assessment of District's transportation needs
- Total length: 37 miles
- District of Columbia Department of Transportation (DDOT) leading system planning, design, financing
  - Ridership potential
  - Demand for additional capacity on Metrorail and bus lines
  - Gaps in existing service
  - Economic development opportunities
- Office of Planning (OP) tasked with assessing land use implications

Purpose of study

- Understand net land use impacts of the streetcar for the District
  - Jobs
  - Quality of life
  - Affordability of living in the District
  - Potential fiscal benefits to the District
  - Projected impact on real estate development
- Identify possible changes in corridors
- Support DDOT's efforts
- Determine potential of streetcar benefits to help fund cost of implementation



The District's suitability for streetcar

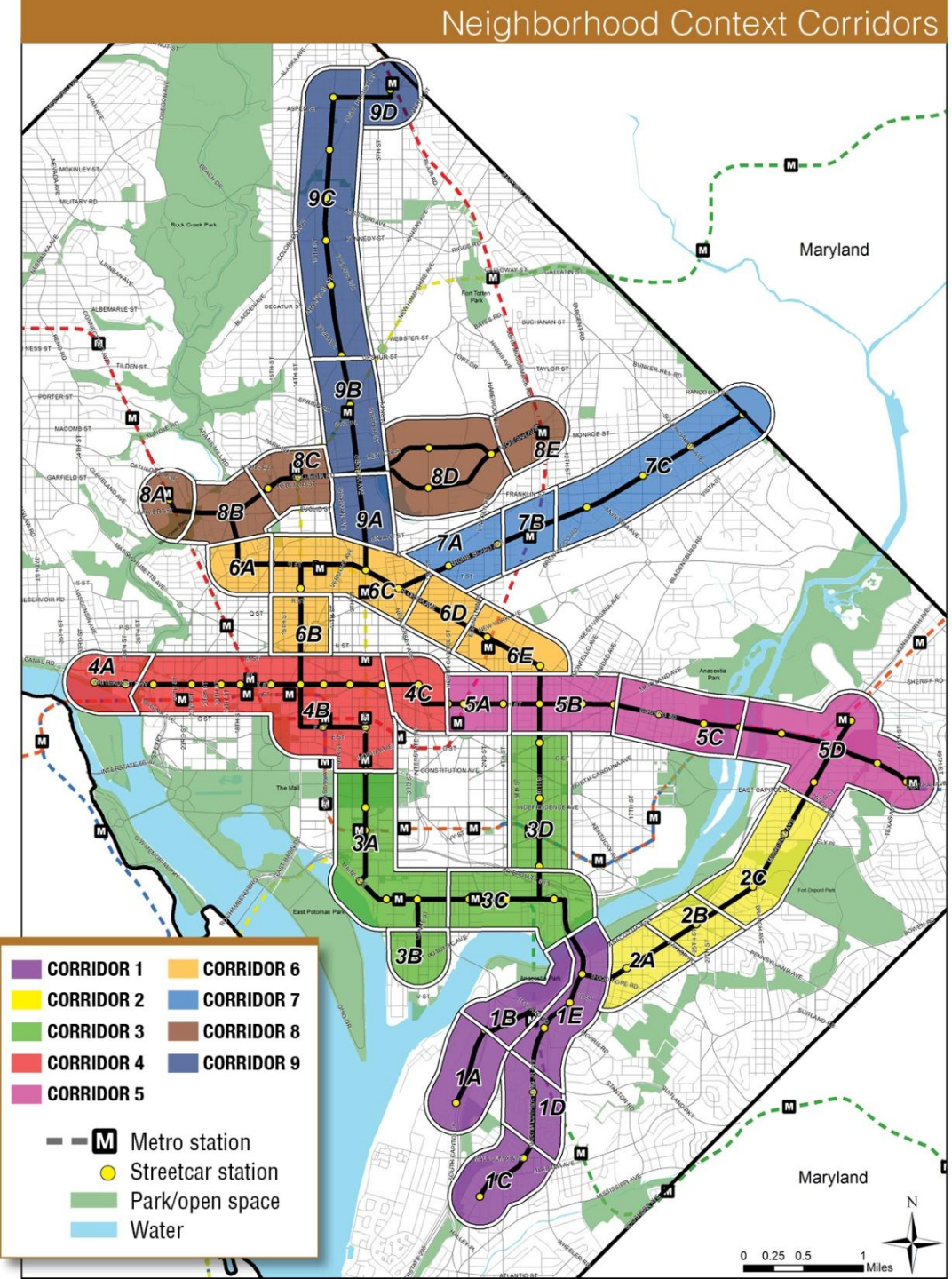
- From 1862 to 1962, an earlier streetcar system shaped District's development patterns.
- District has second-busiest subway system in the U.S., yet Metrorail is not equally available across the city.
- Streetcar network would link many unconnected neighborhoods to Metrorail.
- Running above ground, streetcars are visible and offer residents and visitors a way to experience the city visually.

Lessons from other cities

- Expanded access to economic opportunity.
  - Seattle: new premium-transit access to high-tech jobs center
- Marked rise in real estate values and development potential within ¼ mile of streetcar corridor.
  - Portland: $3.5 billion in new housing, commercial, and retail development within two blocks of the alignment, significantly increasing fiscal returns to the city
- Benefits for established areas.
  - San Francisco: F-line increased retail along Market Street

Comparing transit options

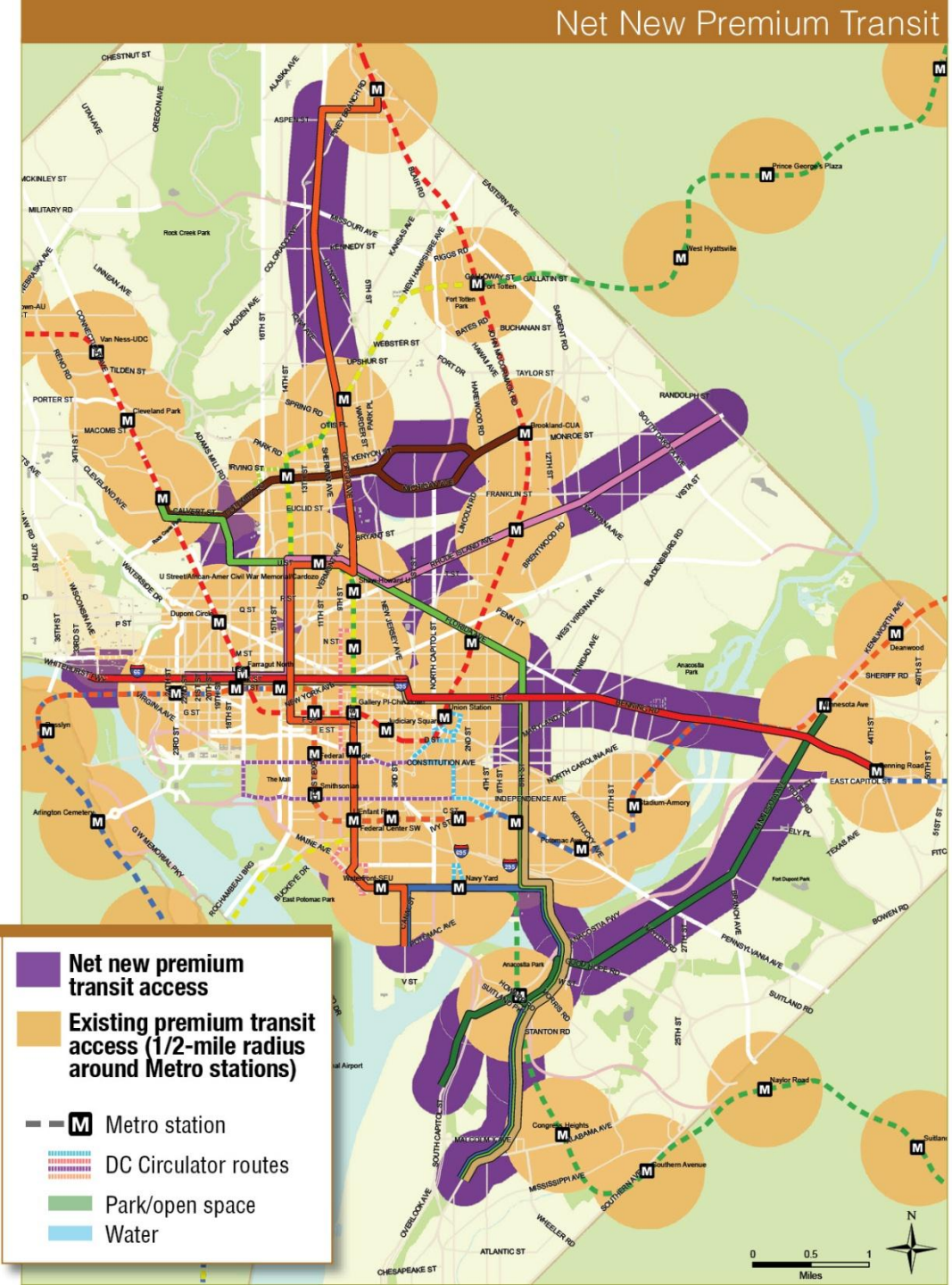
- Bus rapid transit (BRT) costs less to build, can start running sooner, but does not attract same degree of real estate investment.
- Heavy rail costs 5-6 times as much as streetcar, attracts significant real estate investment.
- Streetcar's visibility and permanence also attract private real estate investment. This study projects that increased property value spurred by the streetcar could be 6 to 10 times the system's construction cost.



Defining the study area corridors

- **All land within ¼-mile of proposed streetcar lines.** This distance represents a convenient walking distance (approximately 5 minutes).
- **Nine corridors** demonstrating distinct land-use characteristics.
- **Subdivision of corridors** allows more detailed, local analysis.

The Benefits of the Streetcar



Improves access to premium transit to unlock benefits

- **Premium transit** is service that's reliable, predictable, and offers a high-quality ride: rail-based streetcar and Metro
- **Streetcar provides roughly 72,000 more households convenient access** to rail transit.
- The streetcar offers **new transportation options**, particularly for the 44% of corridor households with no access to a car.

QUALITY OF LIFE

ACCESS TO JOBS

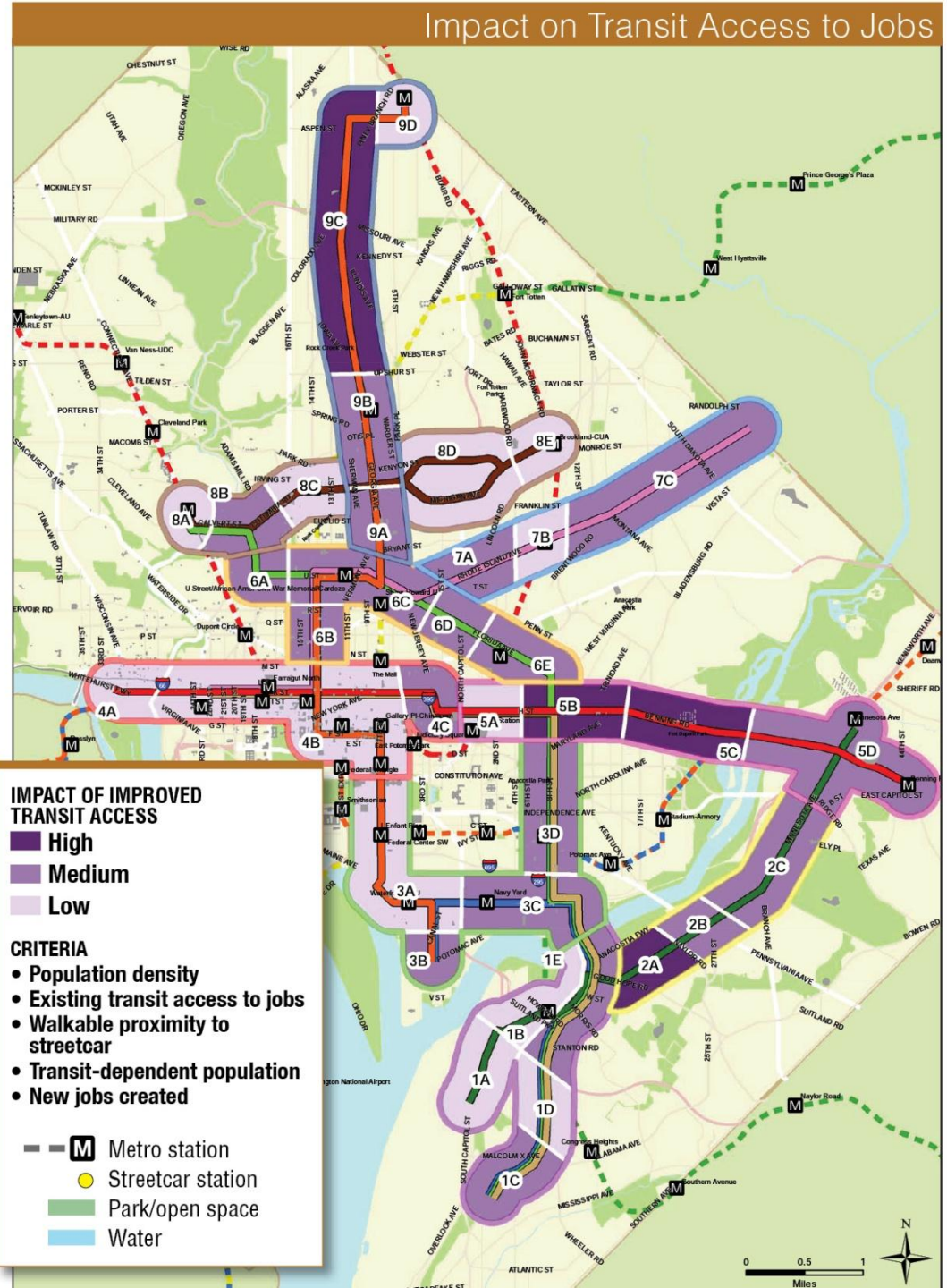
WALKABILITY

ACCESS TO AMENITIES

ACCESS TO SCHOOLS

HISTORIC RESOURCES

HOUSING CHOICE

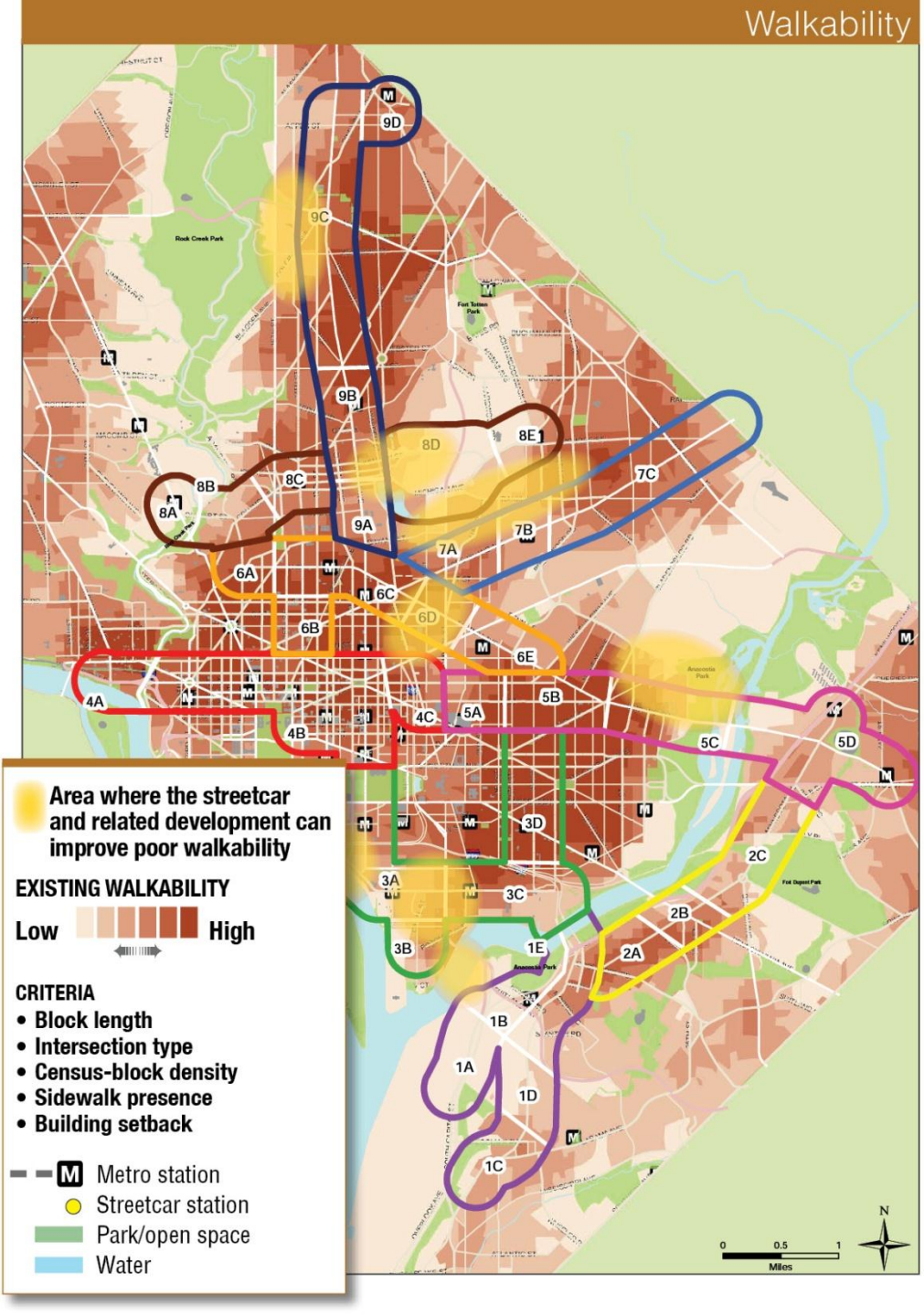


Improves access to jobs

- More than **two-thirds of new housing units and 85%–95% of new office jobs over 10 years** are projected to be on streetcar corridors.
- 44% of existing households within the corridors do not own a car.
- Proposed streetcar lines cross neighborhoods with high numbers of residents who depend on transit.
- Adding **rail transit better connects these and other District residents to jobs and workforce training**.

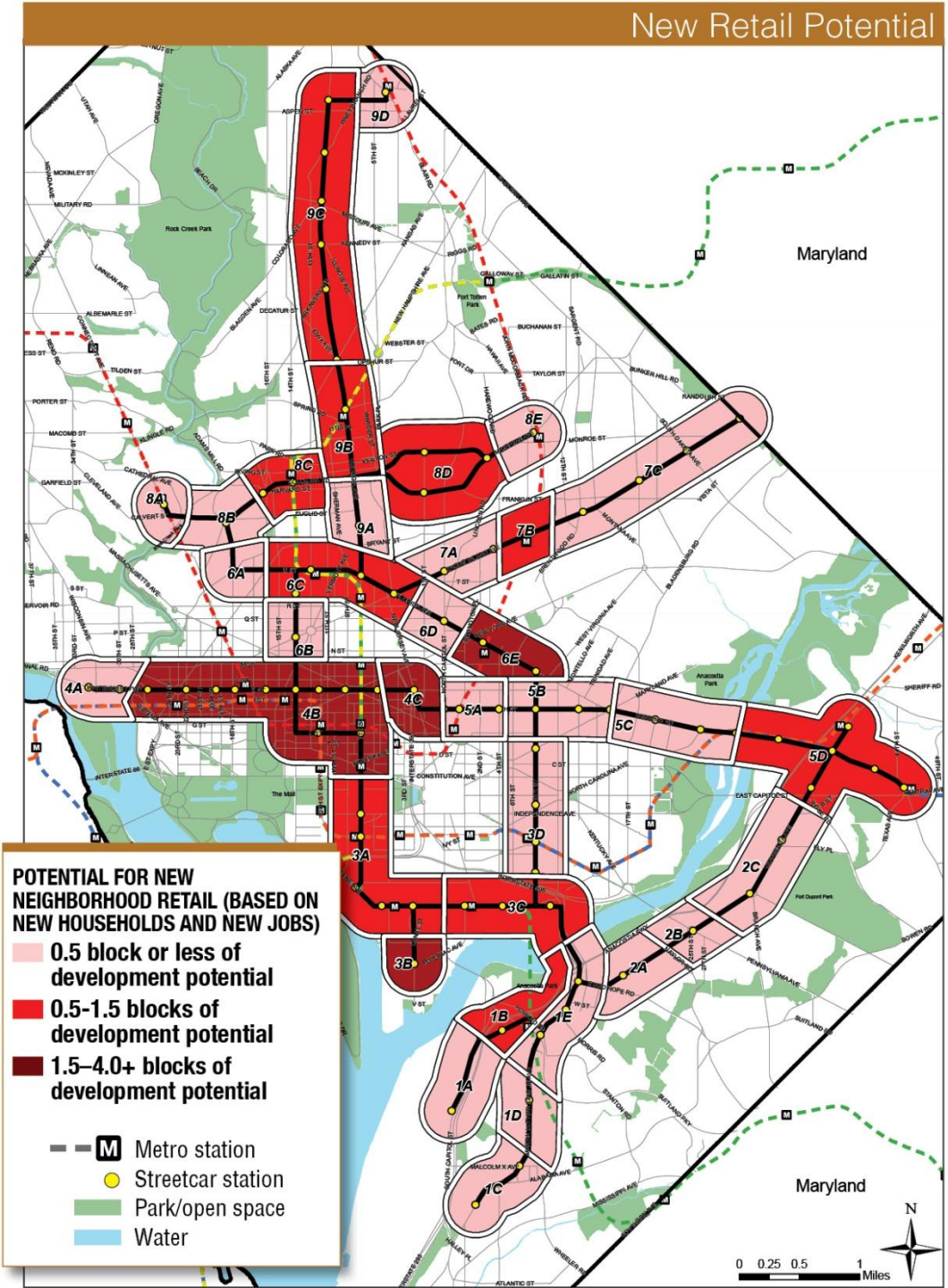
Cuts household transportation costs

- Households can be “car light” or car-free.
- The average automobile cost $8,437 to own and operate in the District in 2010. Most transit commutes cost less than one-third this amount (annual basis).
- Stronger benefit for lower-income households. Measuring proportion of income, they spend more on transportation than any other group.



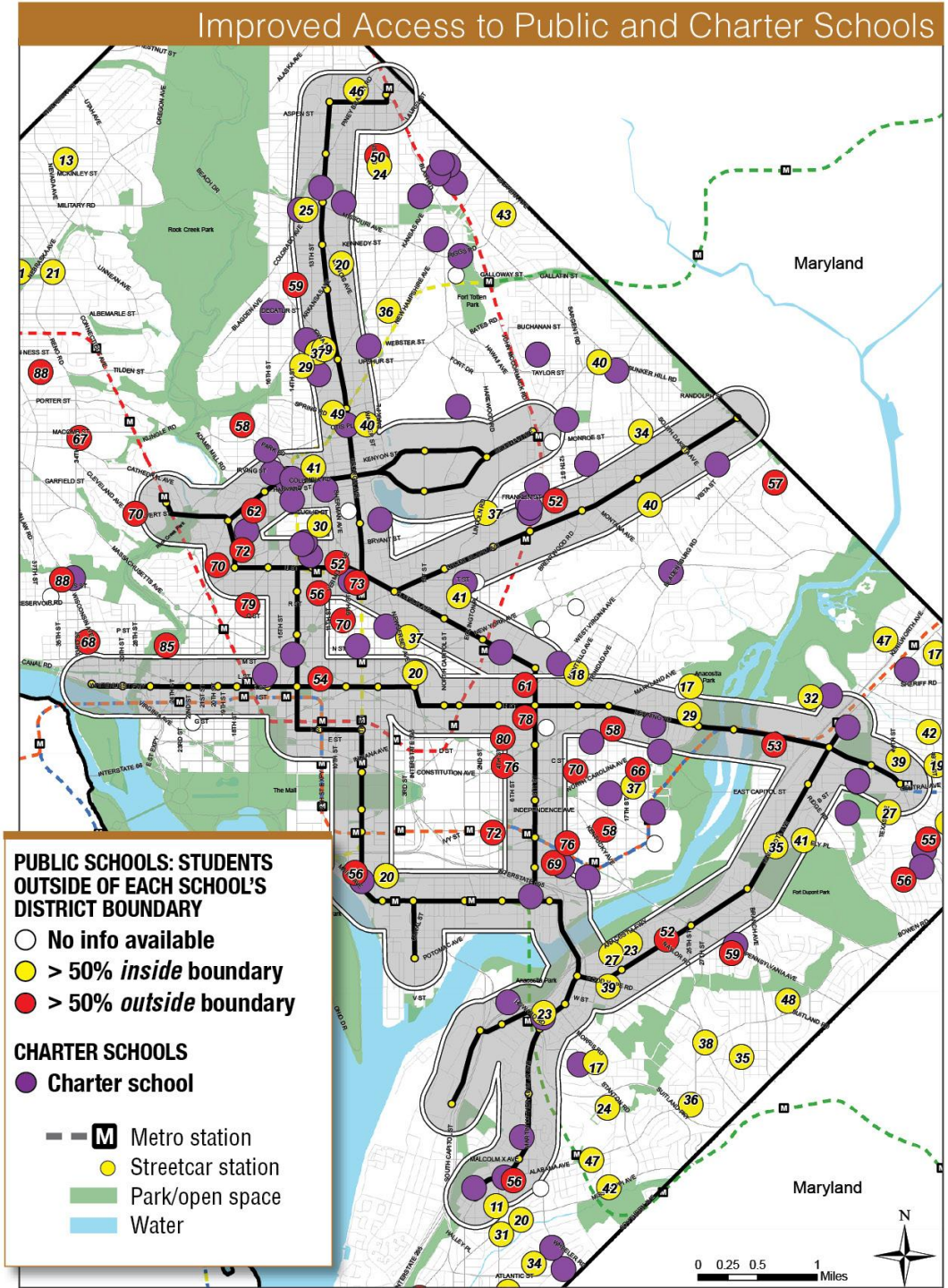
Improves walkability

- The **streetcar "extends the walk"** beyond established transit nodes.
- Increased pedestrian activity **benefits local businesses** and provides a greater **sense of safety**.
- **Transforms 10 auto-oriented areas** into more walkable, complete streets.



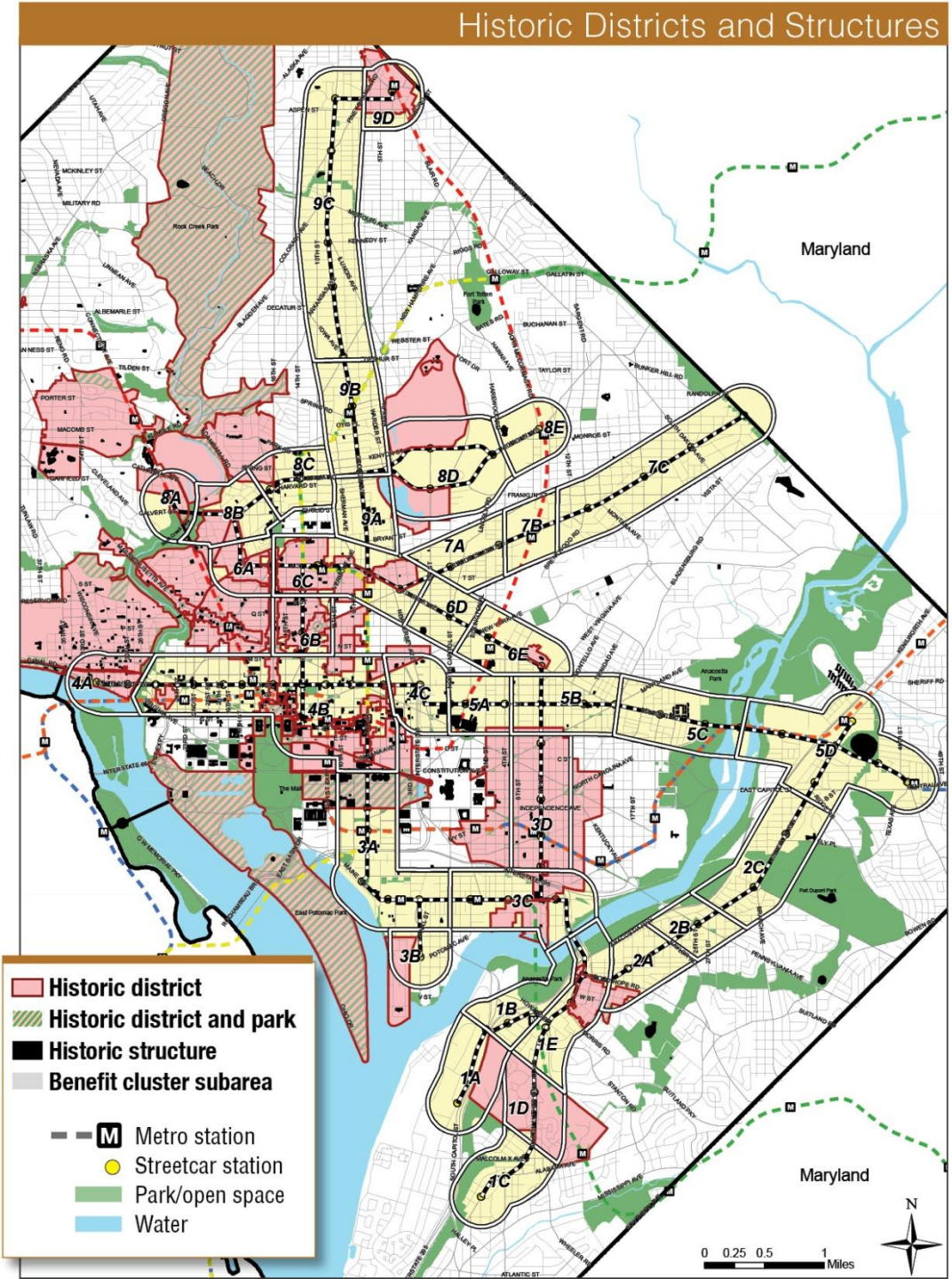
Encourages growth of Main Streets

- Expands area in which intense pedestrian activity **helps support retail.**
- Approximately 1,000 new households can spur creation of one new block of retail (30,000-50,000SF)
- Helps **rebalance auto-oriented commercial streets** by increasing foot traffic, better serving bicyclists, and creating a more walkable, "Main Street" character.



Improves access to schools

- The streetcar would **increase rail transit access to public and charter schools** from 18% to 39%.
- 85% of District office jobs will be along streetcar routes, meaning **more parents could commute with their children.**
- Increased access would **expand school choices** available to District students.



Preserves historic resources

- Many city **neighborhoods developed around streetcar lines**; two-thirds of proposed lines follow earlier routes.
- Streetcar could help:
  - **Revive historic commercial corridors** by making them more accessible.
  - **Promote use of historic-rehabilitation tax credits.**
  - **Expand visitor access to historic/cultural destinations** (above-ground service lets visitors see more places to eat, shop, visit).
  - **Unite communities around cultural/heritage resources** that build a stronger sense of place.

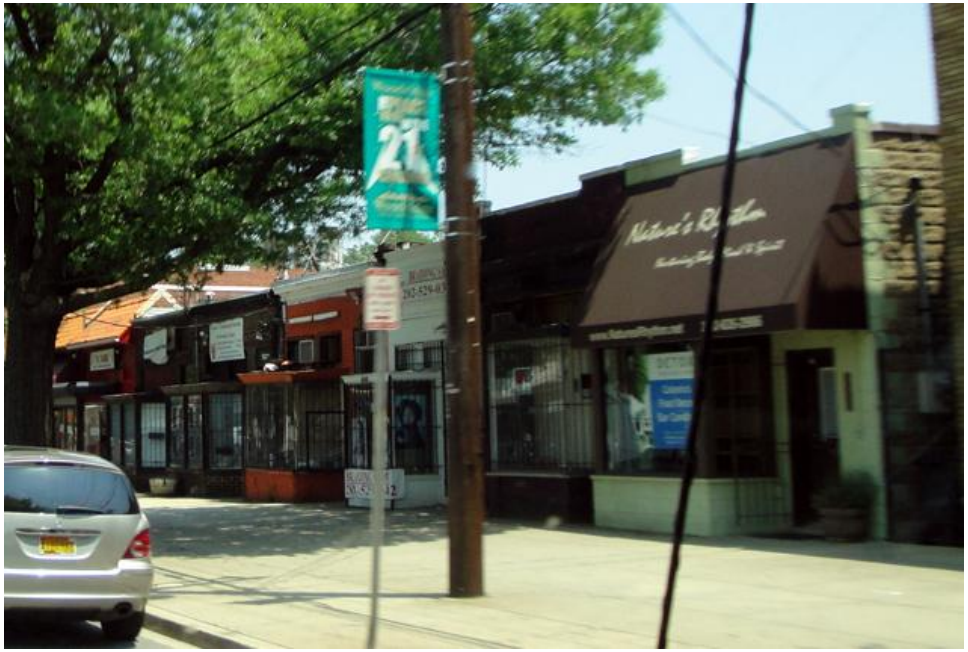
Expands housing choice

- Areas with little to no new market-rate and/or mixed-income housing would **gain** development within a 5-minute walk of the streetcar.
- In other cities, the streetcar has spurred **development of new housing types** such as lofts, smaller units, and accessory dwelling units.
- In higher-income areas, the streetcar could indirectly yield **more affordable housing** as it spurs development subject to inclusionary zoning.

REAL ESTATE INVESTMENT

EXPANDING PROPERTY VALUE

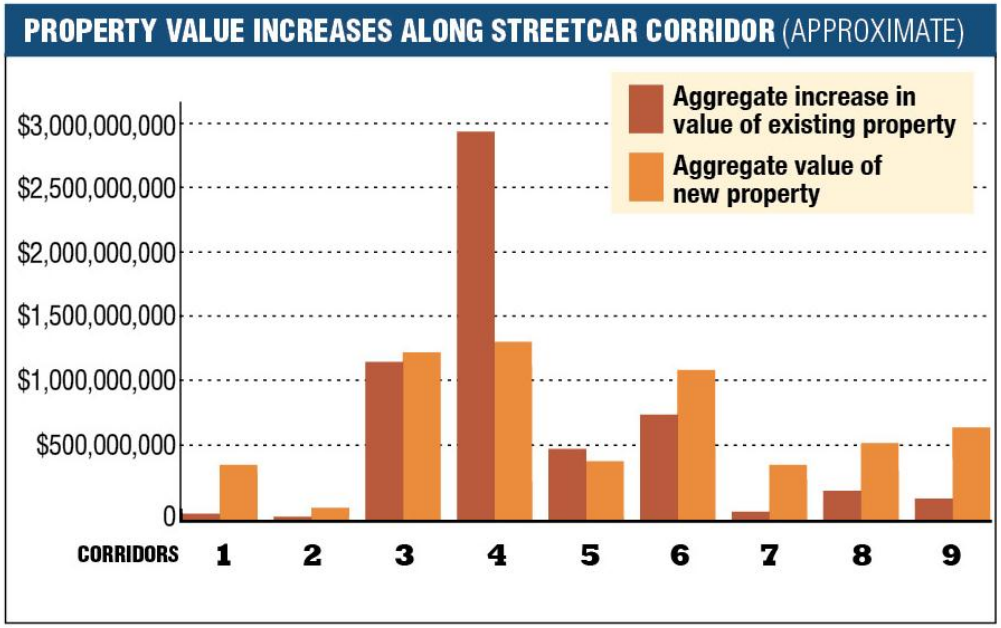
BOOSTING RESIDENTIAL, OFFICE AND RETAIL DEVELOPMENT MARKETS

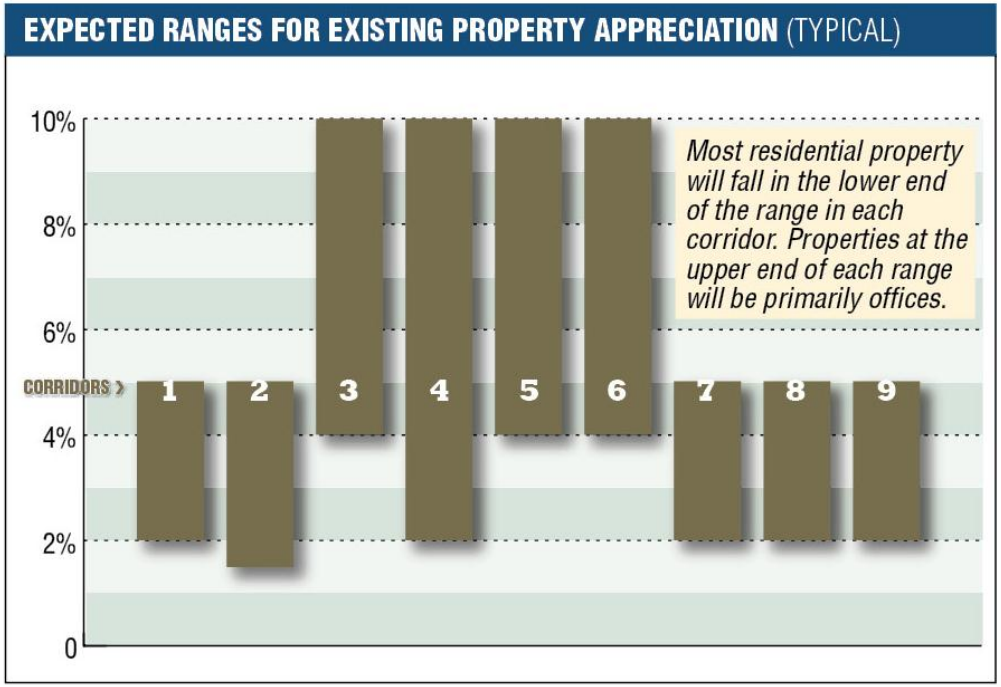


Where and why the streetcar makes a difference

Real estate benefits would be most pronounced where the streetcar:

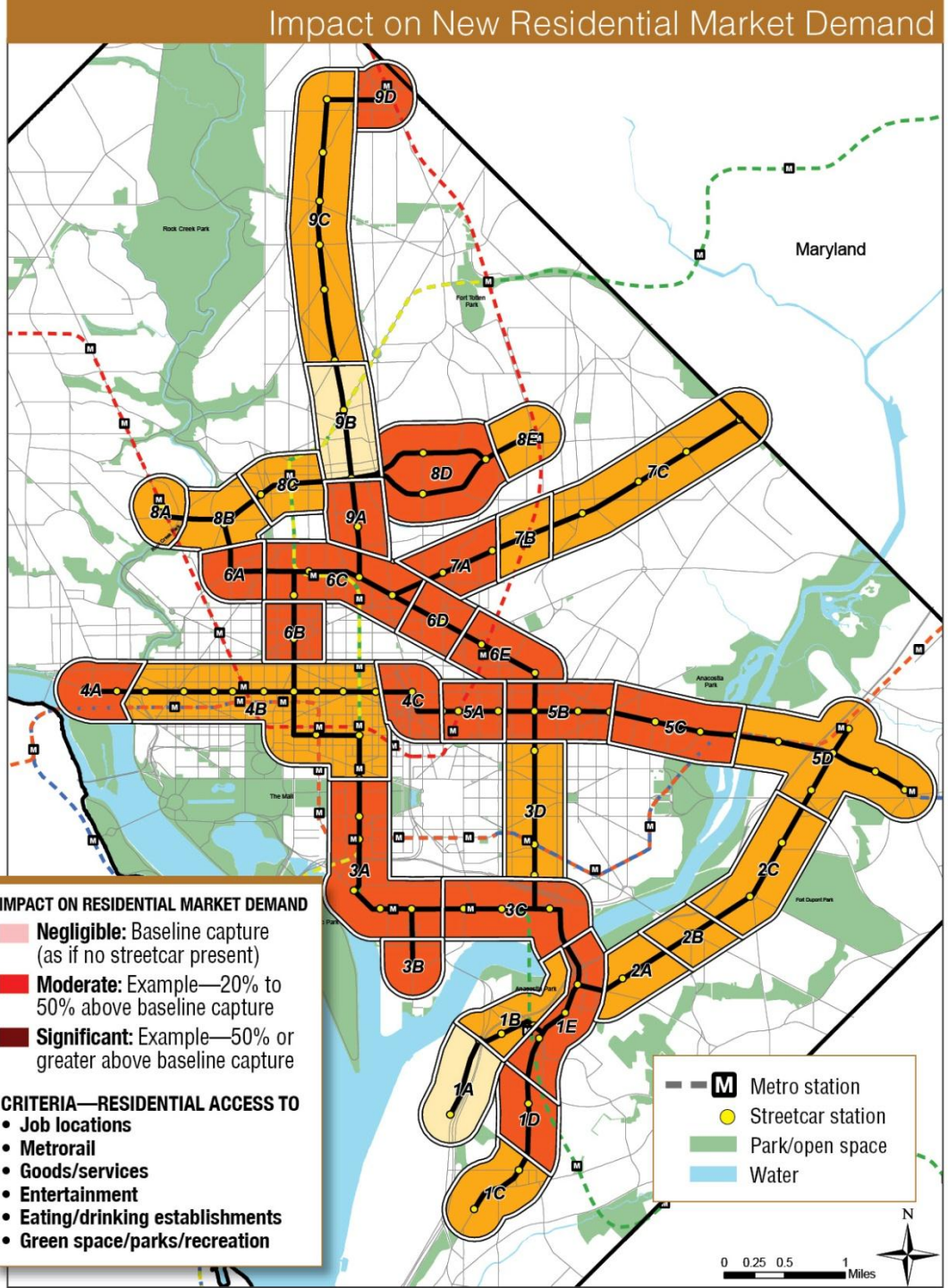
- improves access to underdeveloped areas.
- encourages expansion of existing commercial districts and developed transit nodes by "extending the walk."
- increases accessibility to areas with existing amenities.





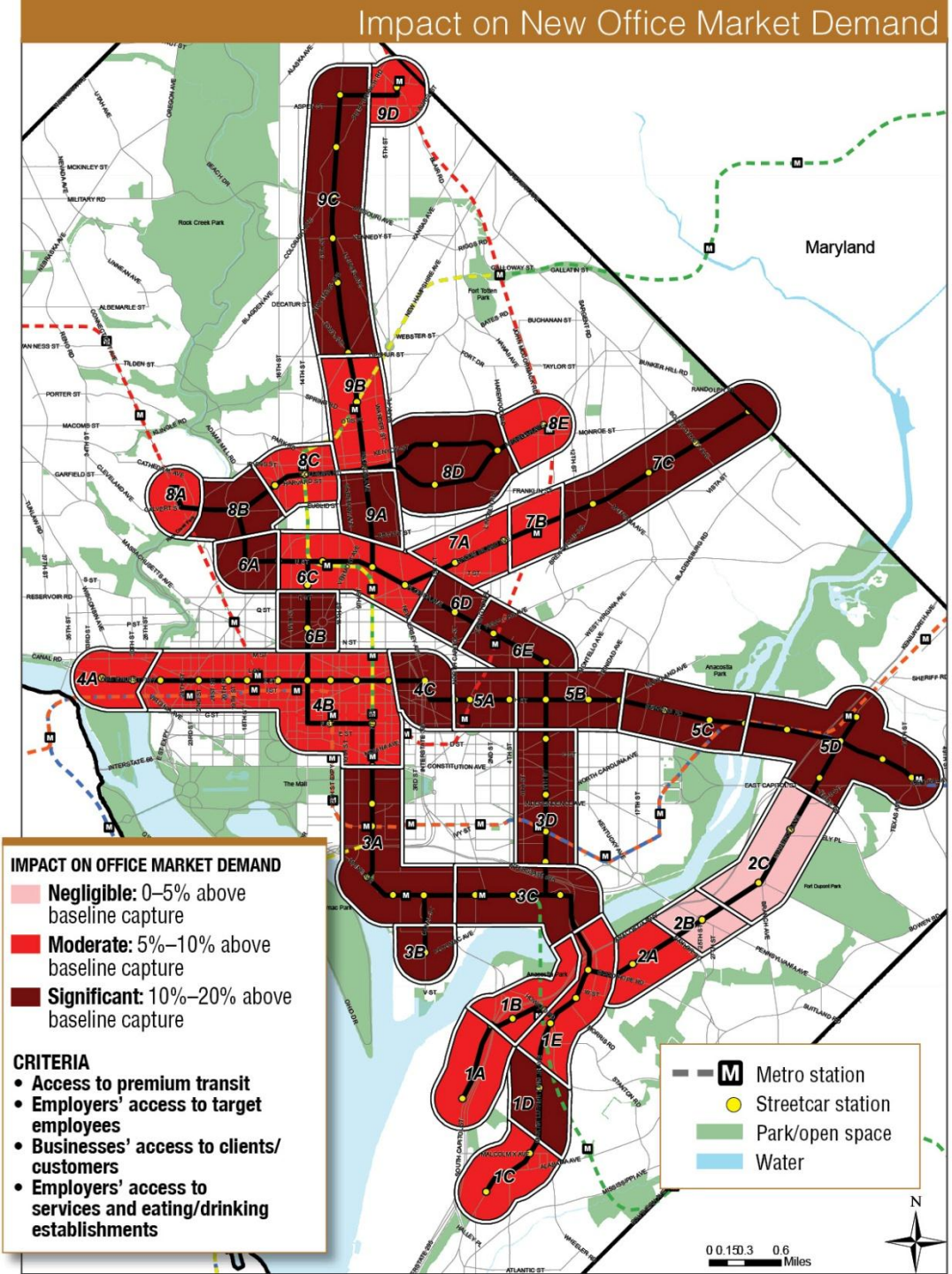
Builds property value

- If the streetcar system were in place today, the study projects that:
  - Existing property would add $5 to $7 billion in value (aggregate)
  - New investment would total $5 to $8 billion (aggregate)
- Values would increase at different rates across corridors.



Residential

- The streetcar would **increase existing residential property value by $1.0 to $1.6 billion.** The most pronounced increases would occur near the District's core, and in areas less well served by Metrorail.
- Most property **values would increase between 5% and12%.**



Office

- **Demand for office development** in the corridors would rise by 2.5 to 3 million SF, a 15% increase.
- **New development** in corridors would move from roughly 85% to 90%+ of all new office investment.
- 80% of new office demand would occur in corridor **areas with substantial underdeveloped land and poor transit** access.
- The **value of existing office property** would rise by roughly $3.7 to $5.8 billion.
- Adjusting route alignment in some areas (Buzzard Point, Poplar Point) could yield **more office** development in those locations.

Retail

POTENTIAL NEW RETAIL SPENDING*		
CORRIDOR	SALES	SQUARE FEET
1	$22,800,000–$27,900,000	80,600–98,000
2	$4,800,000–$5,800,000	17,000–21,000
3	$54,300,000–$66,400,000	192,000–235,000
4	$60,200,000–$73,500,000	213,000–260,000
5	$22,900,000–$28,000,000	81,000–99,000
6	$53,000,000–$64,900,000	188,000–229,000
7	$21,300,000–$26,100,0000	75,000–92,000
8	$29,200,000–$35,700,000	103,000–126,000
9	$36,500,000–$44,600,000	129,000–158,000
TOTAL FISCAL BENEFIT	$305,000,000–$373,000,000	1,100,000–1,300,000

** Projections assume a 10-year time frame and that all corridors receive similar spending potential for each new household or job.*

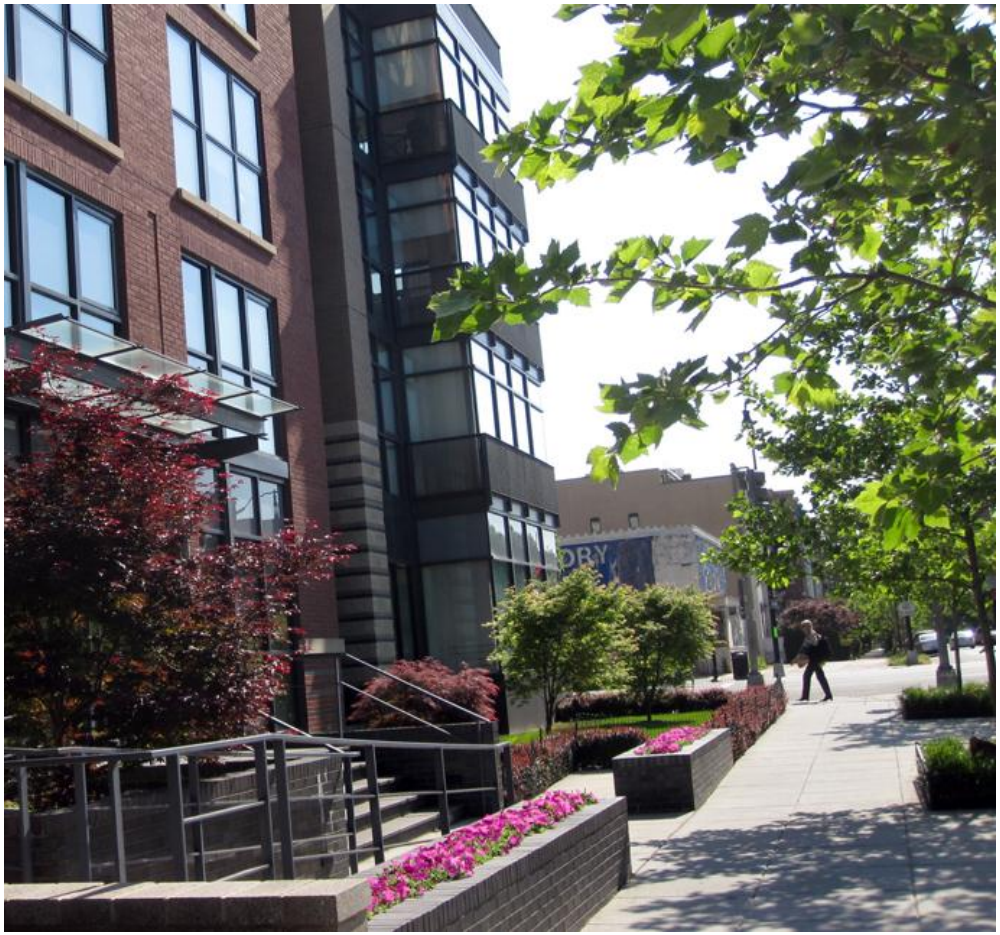
Sources: Claritas Inc., Retail Market Power*; International Council of Shopping Centers*, Office Worker Retail Spending Patterns (2003)*; W-ZHA*

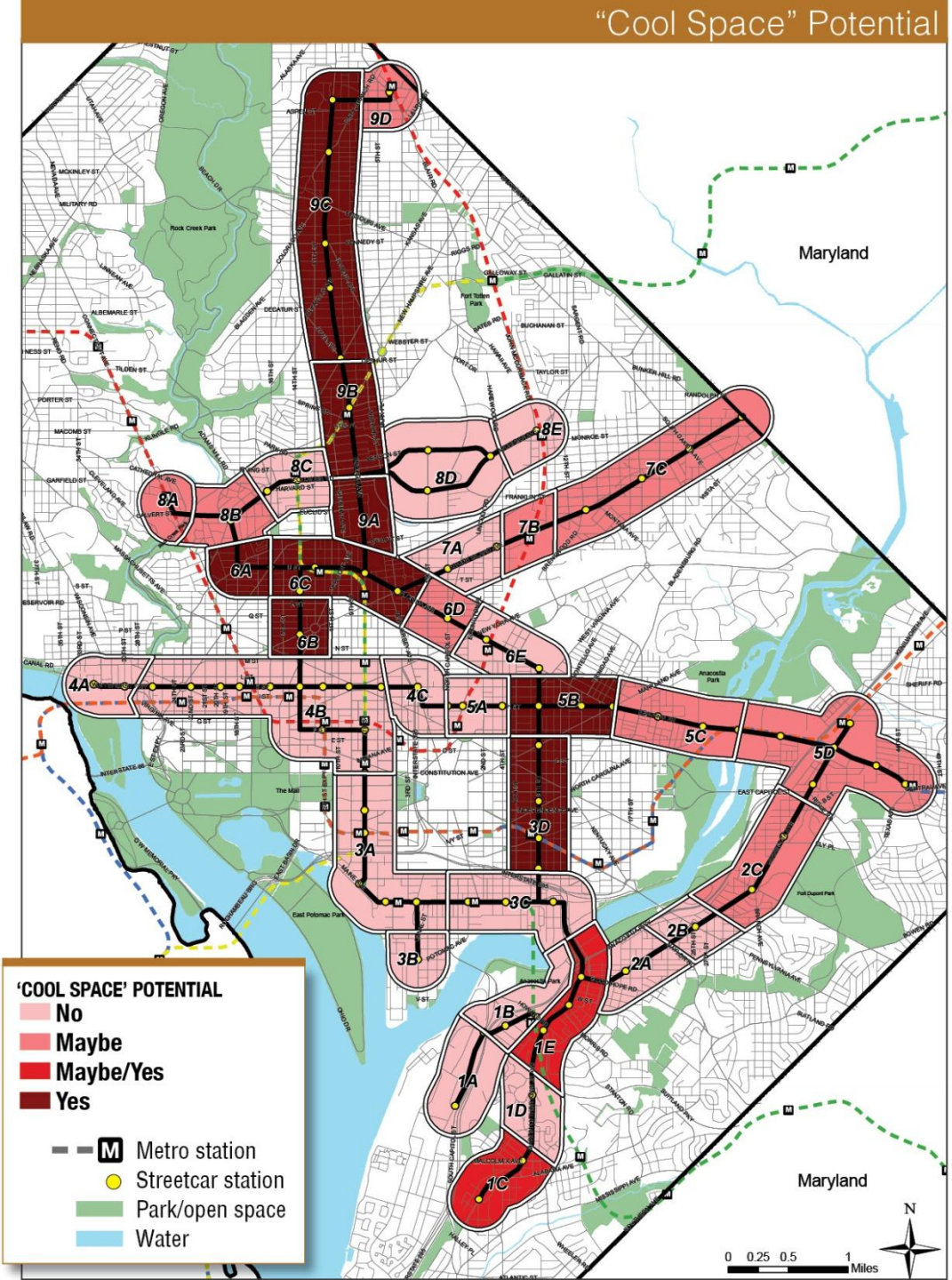
- Added residential and office development along corridors would **boost retail property values and raise retail demand.**
- The streetcar would **add $305 to $373 million to retail spending** potential in the District over ten years.
- **1.1 to 1.3 million SF of new retail** space would be created over ten years.

ECONOMIC AND FISCAL BENEFITS

CREATING, ATTRACTING AND RETAINING JOBS

ENHANCING THE INCOME AND PROPERTY TAX BASE





Expands the creative economy

- Already 10% of District jobs
- Creative industry employees are **50% more likely than the general populace to prefer living and working in urban neighborhoods** with lively commercial districts.*
- The streetcar improves walkability and accessibility of jobs/amenities. Both represent **strategic advantages for the District in retaining creative firms and attracting new ones.**
- Special opportunity to **revive neighborhood main streets**

* "The Young and the Restless in a Knowledge Economy," 2005 study by Impresa Consulting for CEOs for Cities

Attracts new residents

- The streetcar could add **4,000 to 12,000 new District households** over ten years.
- Better access, amenities would help the District retain **existing households that might otherwise move.**
- Taken together, these trends could translate into **about 1,400 new households annually** once the streetcar system is complete.

PROJECTED RESIDENTIAL GROWTH OVER TEN YEARS	BASE *(Without streetcar network)*	PROJECTED STREETCAR IMPACT * *Figures in parentheses show % increase over base condition.*
POPULATION		
Net new District residents	34,340	15,500–18,900 (45–55%)
HOUSEHOLDS		
Net new District households	22,000	10,800–13,200 (49–60%)
Of net new households, those located along streetcar corridors	16,360	7,400–9,000 (45–55%)
Existing households within 1/4 mile of rail transit	39,500 households (16% of 248,300 existing)	72,400 more existing households (29% of existing)
Existing + new households within 1/4 mile of rail transit	43,500 to 48,500 households (16–18% of 270,300 existing + new)	96,200 to 97,800 households (34–35% of 270,300 existing + new)

**Assumes full implementation of streetcar network.*

Attracts new jobs and increases workers who also live in the District

- The streetcar could draw 6,300 to 7,700 new jobs.
- Workers who also live in the District—and pay its income tax—would rise from 31.5% to 32.5% of the workforce over 10 years and reach approximately 34% over 20 years.

PROJECTED JOB GROWTH OVER TEN YEARS (OFFICE AND RETAIL)

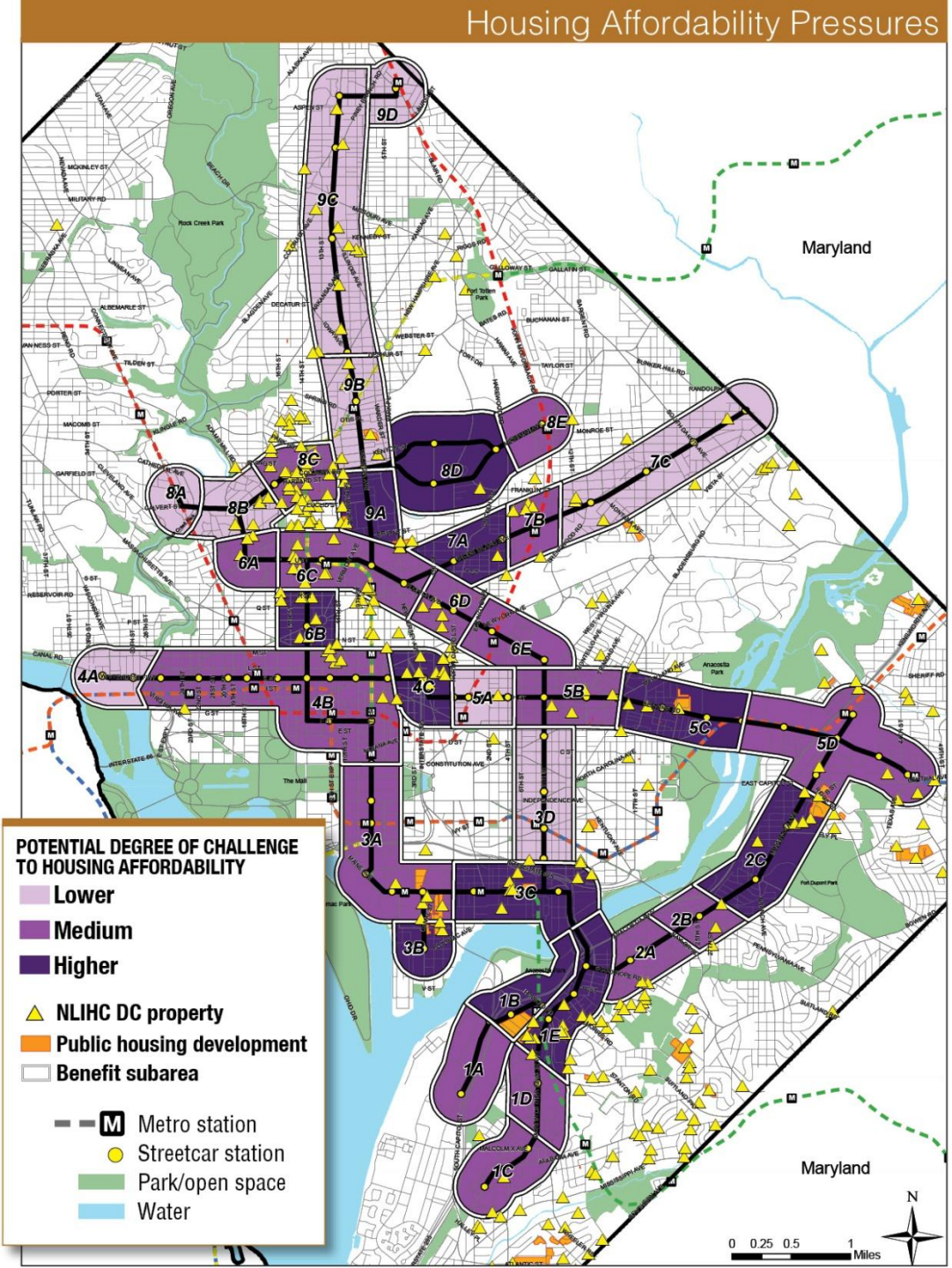
	BASE *(Without streetcar network)*	PROJECTED STREETCAR IMPACT * *Figures in parentheses show % increase over base condition.*
Net new jobs*	78,133	6,300–7,700 (8–10%)
Net new workforce	22,900	10,300–12,600 (45–50%)
Number of jobs in District held by residents—2010	248,220 (31.5% of 788,160 jobs)	n/a
Number of jobs in District held by residents—2020	271,116 (31.5% of 860,760 jobs)*	10,300–12,600 more workforce; 6,300–7,700 more office and retail jobs
Number of jobs in District held by residents—2030	294,013 (31.9% of 922,259 jobs)	10,300–12,600 more workforce; 6,300–7,700 more office and retail jobs

Increases tax revenue

- Taxes generated by existing commercial and residential property would increase by a projected **$88 to $107 million** over ten years.
- Taxes paid by new residents would add a projected **$65 to $80 million** after full system buildout.
- New retail spending after full buildout would generate a projected increase of **$14 million** in annual sales-tax revenue.

PROJECTED FISCAL BENEFIT OF STREETCAR OVER TEN YEARS			
	BASE (WITHOUT STREETCAR)	**PROJECTED STREETCAR IMPACT**	**COMBINED** (BASE + STREETCAR IMPACT)
COMMERCIAL REVNEUES			
Existing property tax—commercial	$1,260,000,000–$1,540,000,000	$79,200,000–$96,800,000	$1,339,200,000–$1,636,800,000
Added property tax from commercial development	$135,000,000–$165,000,000	$5,700,000–$6,900,000	$140,700,000–$171,900,000
RESIDENTIAL REVENUES			
Existing property tax—residential	$244,800,000–$299,200,000	$9,000,000–$11,000,000	$253,800,000–$310,200,000
Added property tax from residential development	$136,800,000–$167,200,000	$68,400,000–$83,600,000	$205,200,000–$250,800,000
Added income tax (new residents due to streetcar)	$117,900,000–$144,100,000	$64,300,000–$78,600,000	$182,200,000–$222,700,000
Added sales tax (new retail sales due to streetcar)	$21,600,000–$26,400,000	$11,900,000–$14,500,000	$33,500,000–$40,900,000
Total fiscal benefit	**$1,916,100,000–$2,341,900,000**	**$238,400,000–$291,400,000**	**$2,154,500,000–$2,633,300,000**

Systemwide Challenges and Mitigation



Challenge: Housing affordability

Challenge: Up to one-third of areas along streetcar corridors could see strong upward pressures on housing prices; one-half would face moderate price pressures.

Response: Affordable transportation, housing

- **Mandatory inclusionary zoning** ordinance applies to most new development with 10 or more units in streetcar corridors.
- **Use public land**, including 100 acres within areas facing strongest price pressures, for housing.
- **Use tax-credit** and other affordable-housing funds in a **targeted way**.
- **Preserve existing public, subsidized**, and/or other affordable housing.
- Encourage creation of **accessory dwelling** ("in-law") units.
- **Household savings** from streetcar service could offset housing value increases:
  - premium transit makes it possible to give up a car
  - improved access to jobs

Challenge: Market shifts

- The streetcar would likely **draw businesses from other areas** of the District.
- **Market interests would likely intensify along streetcar corridors.**
- Owners worry that streetcar may **threaten existing businesses** by triggering rent increases and inviting more competition.

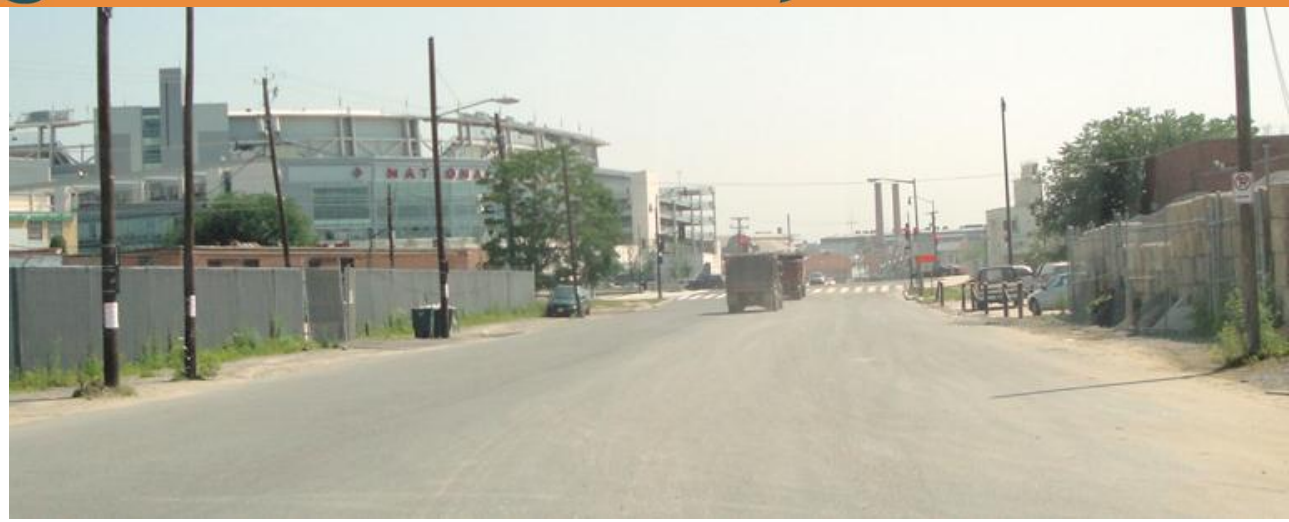
Response: Plan ahead

- **Identify market-based uses** that do not need sites near premium transit.
- Make sure zoning and development policy **promotes mixed-use, transit-oriented development** where it has not historically occurred.
- Experience of other cities suggests that **greater consumer activity generated by streetcars tends to help "mom and pop" stores.**
- Use streetcar planning to identify strategic ways to use existing District business-assistance programs, which have limited funding.

Challenge: Transportation issues

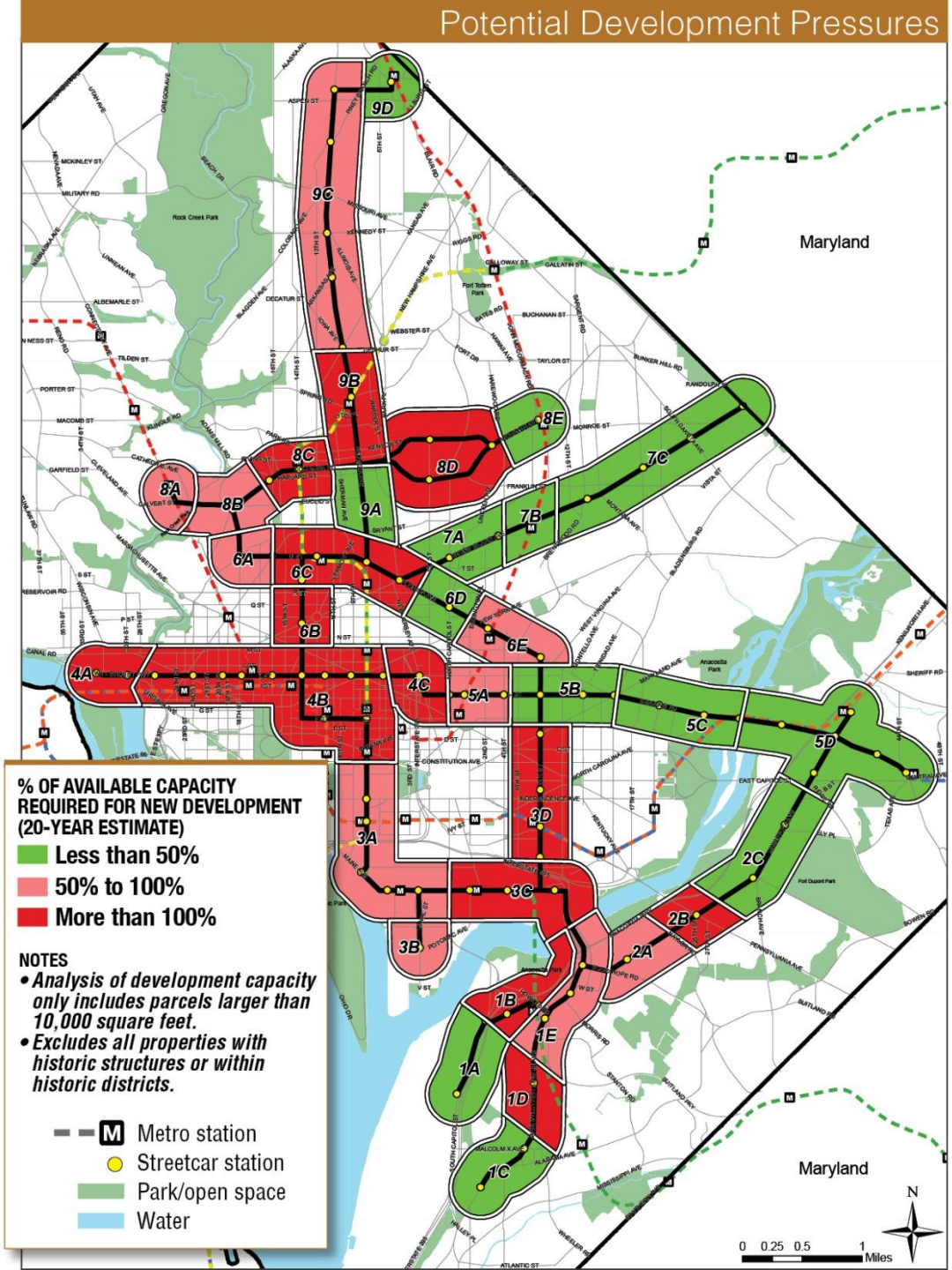
- **Constrained rights of way could create challenges**: congestion; loading/ unloading for businesses; and safe accommodation of bicyclists.
- Streetcars cannot operate on **roads that restrict on-street parking** during peak hours but allow it at other times.
- **Traffic congestion** could pose a problem in several locations.

Strategies and Tools for Optimizing Land Use Impacts



Potential development tools

- Tax increment financing districts, special assessment districts can finance street infrastructure or other public investments that support development.
- Expand existing or encourage new business-improvement districts (BIDs) to bolster private-sector resources.
- Joint development agreements, public-private partnerships:
  - Assist with complex development projects
  - Improve District's ability to influence mix of uses, scale, character
- The District Property Acquisition and Disposition Division and other agencies can assemble, land-bank, and deliver strategic parcels for redevelopment that advances planning goals.



Potential land use tools

- Changes in allowable densities
- Recommendations for changes in land use mix
- Mandatory inclusionary zoning (MIZ)
- Design guidelines

Coordination with infrastructure investments

- Street infrastructure
- Walkability
- Buses
- Bicycling/Bikeshare stations
- Car sharing

Next Steps

- Full report is available on OP website

  www.planning.dc.gov
- Completing technical review of report by District agencies
- Ongoing planning and coordination efforts with District Agencies and communities as implementation moves forward.